

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF PENNSYLVANIA**

<b>CARPENTER TECHNOLOGY CORP.,</b> :	:	<b>CIVIL ACTION</b>
<b>Plaintiff,</b>	:	
	:	
<b>v.</b>	:	<b>NO. 08-2907</b>
	:	
<b>ALLEGHENY TECHNOLOGIES</b>	:	
<b>INCORPORATED and ATI</b>	:	
<b>PROPERTIES, INC.,</b>	:	
<b>Defendants.</b>	:	

**MEMORANDUM**

**STENGEL, J.**

**May 22, 2013**

Before me is the motion for summary judgment of Allegheny Technologies Incorporated and ATI Properties, Inc. (collectively, ATI) on Carpenter Technology Corporation's (Carpenter's) allegations of inequitable conduct. ATI requested an opportunity to brief this issue in light of the Federal Circuit's decision in Therasense, Inc. v. Becton, Dickinson & Co., 649 F.3d 1276 (Fed. Cir. 2011). For the following reasons, I will grant the motion.

**I. BACKGROUND<sup>1</sup>**

**A. The ATI Patents**

On July 9, 2002, the U.S. Patent Office (PTO) issued U.S. Patent No. 6,416,564 (the '564 Patent), and on April 13, 2004, issued U.S. Patent No. 6,719,858 (the '858 Patent) (collectively, the ATI Patents). The claims of the '564 Patent describe specific methods for producing large-diameter (greater than 30 inches), premium-quality, nickel-

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<sup>1</sup> The facts in this section are gleaned from the parties' statements of material facts, viewed in the light most favorable to Carpenter as the non-movant.

base superalloys (including, specifically, Alloys 706 and 718). The '858 Patent claims ingots of Alloy 718 with diameters greater than 30 inches, articles of manufacture made therefrom, and nickel-base alloy ingots manufactured by the claimed method. The ATI Patents name three inventors: Betsy J. Bond, Dr. Laurence Jackman, and Dr. Stewart Ballantyne.

**B. ATI's Patent Prosecution and Disclosures to the PTO**

During the '564 Patent application process, the inventors signed and submitted a declaration in which they acknowledged that they had reviewed the patent specifications and understood the duty to disclose information material to patentability. ATI submitted six publications as related prior art, including a 1997 article by R.C. Schwant and others titled "Large 718 Forgings for Land Based Turbines" (the Schwant 1997 article). The Schwant 1997 article, which totaled twelve pages, cited seven other articles in footnotes. One article cited in the Schwant 1997 article was a 1996 article by A. Helms, C. Adaszik, and L. Jackman titled "Extending the Size Limits of Cast/Wrought Superalloy Ingots" (the Helms-Jackman 1996 article).

All three inventors testified that there were concerns that obtaining a patent could negatively impact ATI's relationship with its customer, General Electric, and that they had discussed these concerns prior to seeking a patent.

**C. Discovery Regarding the Helms-Jackman 1996 Article**

On September 10, 2008, ATI propounded Interrogatory No. 13, which asked Carpenter to:

Identify all material information that Carpenter contends was intentionally withheld from the U.S. Patent and Trademark Office during prosecution of the Patents and, for all such information, identify the person(s) involved in the prosecution of the Patents who were aware of it, when they became aware of it and Carpenter's basis for asserting that the person(s) withholding it made a deliberate decision to do so.

Defs.' App. Ex. 7 at 11.

On November 5, 2008, Carpenter responded to Interrogatory No. 13, in relevant part, as follows:

Laurence A. Jackman is a named inventor on the '564 patent and is or was an employee of Allvac[, the predecessor to the Allvac Division of ATI, which owns the '564 Patent,] during all relevant times. Jackman is a named co-author of a technical article entitled "Extending the Size Limits of Cast/Wrought Superalloy Ingots" that was published in 1996, also identified in response to Interrogatory No. 6. The technical article describes the need for thermal treatment of large nickel base alloy ingots in order to avoid cracking that may result from internal stresses and the need to avoid large thermal gradients that develop during heating and cooling of large diameter nickel base alloy ingots. The article also states that Allvac had successfully melted ingots of a nickel base alloy up to 36 and 40 inches in diameter by a triple melt process, including VIM, ESR, and VAR. The information in the article provides a motivation for the steps of transferring, holding, and increasing that the Patent Examiner of the '564 patent state was not in the prior art. The prosecution history of the patents does not contain any indication that the information contained in the article was conveyed to the USPTO during the patent examination.

Intent to withhold the information is inferred because of the high degree of materiality of the undisclosed information.

Id. at 12.

Interrogatory No. 6, referenced in response to Carpenter's response to Interrogatory No. 13, sought identification of "all the prior art" Carpenter had located. In response to Interrogatory No. 6, Carpenter identified, among other materials, the Helms-Jackman 1996 article. During its depositions of co-inventors Betsy Bond and Dr. Stewart

Ballantyne, as well as its deposition of ATI internal counsel Patrick Viccaro, Carpenter did not ask any questions regarding the Helms-Jackman 1996 article, whether the inventors or Mr. Viccaro considered it, or their reasons, if any, for not disclosing it to the PTO. During its deposition of co-inventor Dr. Jackman, Carpenter asked the following two questions regarding the Helms-Jackman 1996 article:

Q. Okay. Did you – you had written an article I think in 1996 with Ann Helmes [sic]. Do you remember that article?

A. Yes.

Q. Did you consider whether to provide that article to the U.S. Patent Office in connection with the patent application?

A. I can't remember the specific articles right now, but what we did was looked at all of them. We just took – here's the ones that – that we produced and we wanted to have some of those records in it as far as – but we didn't want to have a lot of redundant information. So we just picked out some of them just so that they told us provide any information that we had. We didn't – wasn't necessarily provide all of them. We just wanted to select representative ones so that all the information that we had was contained and right upfront.

Defs.' App. Ex. 5 at 153-54.

**D. Discovery Regarding Production and Allegedly Invalidating Commercial Sales of the Claimed Invention**

The '564 Patent specifications, which were reviewed and prepared in part by Mr. Viccaro, and reviewed and approved by the inventors, provide that despite prior efforts:

[T]he largest commercially available premium quality VAR ingots of Alloy 718, for example, are currently 20 inches (508 mm) in diameter, with limited material produced at up to 28-inch (711 mm) diameters. Attempts at casting larger diameter VAR ingots of Alloy 718 have been unsuccessful due to the occurrence of thermal cracking and undesirable segregation. Due to length restrictions, 28-inch VAR ingots of Alloy 718 weigh no more than about 21,500 lbs (9772 kg). Thus, Alloy 718 VAR ingots in the

largest commercially available diameters fall far short of the weights needed in emerging applications requiring premium quality nickel base superalloy material.

Defs.' App. Ex. 1 at col. 2:54-64.

During its deposition of Ms. Bond, Carpenter elicited the following testimony regarding ATI's production and alleged sale of 24- and 27-inch Alloy 718 ingots prior to the critical date:

Q. [W]ould you agree that – that conceptually, that the large-diameter triple-melt 718 ingot history began – this describes it at the starting point as a 24-inch diameter that apparently was – was being melted as early as 1994? Would you agree with that?

A. The 24-inch product had been melted prior to 1994.

\* \* \*

Q. Okay. As of – as of the time you joined Allvac, was the 24-inch diameter 718 triple-melt ingot being produced on a commercial basis?

A. Yes.

\* \* \*

Q. [B]ased on – based on your review of internal Allvac documents and your experience in – in working with the company and working in this area, do you feel comfortable to – to make the statement that Allvac began work on the 27-inch 718 development in 1994?

A. Yes.

Q. Now, the next bullet point there, "Production begins on 27-inch 718 ingots cropped and tested for chemistry and structure," the production that's being referred to there, was that production for commercial sales, or was that production for some other reason?

\* \* \*

A. Those ingots would have been sold, yes.

Pl.'s App. Ex. G at 30-33.

Questioning Dr. Jackman on the same topic, Carpenter elicited the following testimony:

Q. [T]here's a sentence there [in the patent specifications], ["]despite these efforts, the largest commercially available premium quality VAR ingots of alloy 718, for example, are currently 20 inches, 508 millimeters in diameter with limited material produced at up to 28-inch 711 diameters.["] Do you see that statement?

A. Yes.

\* \* \*

Q. [B]ut at least – since at least sometime in the 1996 to 1997 time frame, Allvac had been commercially selling triple melt 718 ingots with a diameter of at least 27 inches, hadn't it?

A. It says limited material produce and – and it was limited material produced.

\* \* \*

Q. But it was also commercially available, wasn't it?

A. We sold – we sold the material, yeah.

Defs.' App. Ex. 5 at 155-57.

Despite this testimony, Ms. Bond testified that ATI's sales activities were "a bit outside [her] area" and that she "couldn't [say] for sure what was going on there."

Defs.' App. Ex. 3 at 130. Dr. Jackman similarly testified that he couldn't recall "all the details" of ATI's sales activities because he was "focused on the technical side." Defs.' App. Ex. 5 at 115-16.

### **E. Carpenter's Allegations**

On July 29, 2009, Carpenter filed its second amended complaint, setting forth allegations of inequitable conduct in Counts V and VI. Carpenter alleged in relevant part that ATI misrepresented to the PTO that Allvac manufactured and sold triple-melted ingots of nickel-base alloys more than one year before the '564 Patent filing "in accordance with a customer specification that requires a transferring step that is the same as the transferring step in Claims 1 and 27 of the '564 Patent" and "using a process that meets all of the requirements of the holding and increasing steps of Claims 1 and 27 of the '564 Patent." Doc. No. 49 at ¶¶ 44-45. Carpenter also cited ATI's alleged non-disclosure of the Helms-Jackman 1996 article. Carpenter incorporated these allegations in its sixth additional defense in response to ATI's counterclaims.

## **II. STANDARD OF REVIEW**

Summary judgment is appropriate when "the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). A factual dispute is "material" only if it might affect the outcome of the case. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986). For an issue to be "genuine," a reasonable fact-finder must be able to return a verdict in favor of the non-moving party. Id.

A party moving for summary judgment always bears the initial burden of informing the court of the basis for its motion and identifying those portions of the record that it believes demonstrate the absence of a genuine issue of material fact. Celotex Corp. v. Catrett, 477 U.S. 317, 322 (1986). A party asserting that a fact cannot be or is

genuinely disputed must support the assertion by citing relevant portions of the record, including depositions, documents, affidavits, or declarations, or showing that the materials cited do not establish the absence or presence of a genuine dispute, or showing that an adverse party cannot produce admissible evidence to support the fact. Fed. R. Civ. P. 56(c). Summary judgment is therefore appropriate when the non-moving party fails to rebut the moving party's argument that there is no genuine issue of fact by pointing to evidence that is "sufficient to establish the existence of an element essential to that party's case, and on which that party will bear the burden of proof at trial." Celotex Corp., 477 U.S. at 322; Harter v. GAF Corp., 967 F.2d 846, 852 (3d Cir. 1992).

Under Rule 56, the court must draw "all justifiable inferences" in favor of the non-moving party. Anderson, 477 U.S. at 255. The court must decide "not whether . . . the evidence unmistakably favors one side or the other but whether a fair-minded jury could return a verdict for the plaintiff on the evidence presented." Id. at 252. The non-moving party cannot avert summary judgment with speculation or conclusory allegations, such as those found in the pleadings, but rather, must present clear evidence from which a jury can reasonably find in its favor. Ridgewood Bd. of Educ. v. N.E. for M.E., 172 F.3d 238, 252 (3d Cir. 1999).

### **III. DISCUSSION**

At issue here is the Federal Circuit's decision in Therasense, Inc. v. Becton, Dickinson & Co., 649 F.3d 1276 (Fed. Cir. 2011). Describing the inequitable conduct doctrine as having "plagued not only the courts but also the entire patent system," the court in Therasense "tighten[ed] the standards for finding both intent and materiality in



order to redirect a doctrine that has been overused to the detriment of the public.” Id. at 1289-90; see also Outside the Box Innovations, LLC v. Travel Caddy, Inc., 695 F.3d 1285, 1291 (Fed. Cir. 2012) (“The court in Therasense sought to restore objectivity and consistency to the law of inequitable conduct.”)

At the outset, the court stressed that “[i]ntent and materiality are separate requirements” which must be independently evaluated, Therasense, 649 F.3d at 1290, and proved by clear and convincing evidence, id. at 1287; see also Outside the Box, 695 F.3d at 1290. “A district court should not use a ‘sliding scale,’ where a weak showing of intent may be found sufficient based on a strong showing of materiality, and vice versa. Moreover, a district court may not infer intent solely from materiality.” Therasense, 649 F.3d at 1290.

Regarding intent, “the accused infringer must prove that the patentee acted with the specific intent to deceive the PTO.” Id. Specific intent to deceive requires the patentee to have “acted knowingly and deliberately with the purpose of defrauding the PTO.” Id. The patentee must *actually* know—not merely *should* know—that information is material and deliberately decide to omit or misrepresent it before the PTO. The court explained further:

[T]o meet the clear and convincing evidence standard, the specific intent to deceive must be the single most reasonable inference able to be drawn from the evidence. Indeed, the evidence must be sufficient to require a finding of deceitful intent in the light of all the circumstances. Hence, when there are multiple reasonable inferences that may be drawn, intent to deceive cannot be found.

Id. at 1290-91 (citations and internal quotation marks omitted).

Regarding materiality, the accused infringer must, as a general matter, show that a misrepresentation or omitted reference is “but-for material,” meaning that “the PTO would not have allowed a claim” if it had before it accurate information or the undisclosed prior art. Id. at 1291. “Although but-for materiality generally must be proved to satisfy the materiality prong of inequitable conduct,” the court “recognize[d] an exception in cases of affirmative egregious misconduct.” Id. at 1292. In such “extraordinary circumstances,” the misconduct is per se material. Id. at 1292-93.

Ultimately, “[t]o establish unenforceability based on inequitable conduct in the PTO, it must be shown that information material to patentability was withheld from the PTO, or material misinformation was provided to the PTO, with the intent to deceive or mislead the patent examiner into granting the patent.” Outside the Box, 695 F.3d at 1290. With these principles in mind, I turn to the parties’ arguments.

Carpenter points to two alleged acts of inequitable conduct in opposition to ATI’s motion: 1) Dr. Jackman’s purported failure to disclose the Helms-Jackman 1996 article, which he co-authored, and 2) Ms. Bond, Dr. Jackman, and Mr. Viccaro’s purported misrepresentations in the patent application regarding prior production and commercial sales of the claimed invention. ATI assumes for the purpose of its motion that misrepresenting prior commercial sales would be “but-for material,” and I will do the same for Dr. Jackman’s failure to disclose the Helms-Jackman 1996 article. Even if these actions were “but-for material,” Carpenter has not clearly and convincingly shown that ATI “acted with the specific intent to deceive the PTO.” Therasense, 649 F.3d at 1290;

see also 1st Media, LLC v. Elec. Arts, Inc., 694 F.3d 1367, 1372 (Fed. Cir. 2012) (“A failure of proof on any element precludes a finding of inequitable conduct.”).

As to the Helms-Jackman 1996 article, the most the record indicates is that Dr. Jackman did not submit the article in full<sup>2</sup> because he believed it to be “redundant” of other materials submitted to the PTO. Although it casts Dr. Jackman’s explanation as “self-serving,” Pl.’s Opp’n Br. at 14, Carpenter failed to press him further or otherwise develop the record on this point. While Carpenter submits that its evidence “directly contradicts Dr. Jackman’s testimony regarding the *materiality* of the Helms-Jackman 1996 article,” *id.* at 19, it cites no evidence regarding Dr. Jackman’s allegedly deceitful *intent*. Therasense, 649 F.3d at 1290 (“Intent and materiality are separate requirements[, and] a district court may not infer intent solely from materiality.”). There is simply nothing in the record before me to throw Dr. Jackman’s explanation into doubt, much less evidence “sufficient to *require* a finding of deceitful intent in the light of all the circumstances.”” Therasense, 649 F.3d at 1290 (quoting Kingsdown Med. Consultants, Ltd. v. Hollister Inc., 863 F.2d 867, 873 (Fed. Cir. 1988)) (emphasis added). Indeed, Dr. Jackman’s explanation is the *only* reasonable inference to be drawn from the record, and ATI is entitled to summary judgment on that basis alone.

Nonetheless, Carpenter contends, without citation to the record, that *if* a jury disbelieved Dr. Jackman’s explanation and determined that he knew the Helms-Jackman 1996 article was material, “it would necessarily lead to a finding that he knowingly

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<sup>2</sup> ATI stresses that the Helms-Jackman 1996 article was cited in a footnote in the Schwant 1997 article, which was explicitly disclosed to the PTO.

withheld a material reference from the PTO.” Pl.’s Opp’n Br. at 19. I am not persuaded for two reasons. First, even if a jury were to find Dr. Jackman lacking in credibility, “that alone is insufficient to find specific intent to deceive under the knowing and deliberate standard.” Am. Calcar, Inc. v. Am. Honda Motor Co., Inc., 651 F.3d 1318, 1335 (Fed. Cir. 2011) (citing Therasense, 649 F.3d at 1289-91). And second, “[a]n applicant’s knowledge of a reference’s materiality . . . cannot by itself prove, let alone clearly and convincingly prove, that any subsequent non-disclosure was based on a deliberate decision.” 1st Media, 694 F.3d at 1375; id. at 1376 (“[T]he evidence supports only that [the inventor and his attorney] (1) knew of the references, (2) may have known they were material . . . , and (3) did not inform the PTO of them. But that is not enough.”). Rather, Carpenter must show that Dr. Jackman “acted knowingly and deliberately *with the purpose of defrauding the PTO.*” Therasense, 649 F.3d at 1290 (emphasis added); see also Outside the Box, 695 F.3d at 1290 (finding no inequitable conduct where there was “no suggestion of deliberate action to withhold [prior art] *in order to deceive the examiner*”) (emphasis added); cf. 1st Media, 694 F.3d at 1375 (distinguishing Aventis Pharma S.A. v. Hospira, Inc., 675 F.3d 1324 (Fed. Cir. 2012), in which the court found inequitable conduct based on “affirmative conduct by the applicants showing not only specific awareness of materiality, but careful and selective manipulation of where, when, and how much of the most material information to disclose”). Because Carpenter has fallen well short of making this showing by clear and convincing evidence, ATI is entitled to summary judgment on this point.

As to ATI's production and alleged sale of claimed invention prior to the critical date, Carpenter seizes on the following portion of the patent specifications: "[T]he largest commercially available premium quality VAR ingots of Alloy 718, for example, are currently 20 inches (508 mm) in diameter, with limited material produced at up to 28-inch (711 mm) diameters. Attempts at casting larger diameter VAR ingots of Alloy 718 have been unsuccessful due to the occurrence of thermal cracking and undesirable segregation." Carpenter contends this statement is inconsistent with Ms. Bond's and Dr. Jackman's testimony that 24- and 27-inch Alloy 718 ingots were "sold" prior the critical date and with evidence that "larger diameter" ingots were successfully casted. Carpenter argues these inconsistencies are evidence of intent to deceive the examiner regarding the existence of invalidating commercial sales. Pl.'s Opp'n Br. at 18-20. I am not persuaded for three reasons.

First, assuming the specifications are inconsistent with Ms. Bond's and Dr. Jackman's testimony,<sup>3</sup> and with ATI's production of large-diameter ingots, this would, without more, only be evidence of materiality, and "a district court may not infer intent solely from materiality." Therasense, 649 F.3d at 1290. Second, again assuming an inconsistency exists, Carpenter has not proffered evidence that Ms. Bond and Dr. Jackman actually knew the "sales" to which they testified were material. To the contrary, in light of their testimony that their responsibilities were primarily technical in nature, a

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<sup>3</sup> ATI contends the cited testimony is consistent with its disclosure that "limited material [was] produced at up to 28-inch (711 mm) diameters." Although this argument pertains to the materiality of the purported misrepresentations, which I (and ATI) have assumed, I note that the legitimate ambiguity raised by ATI shows that the specifications were not "*unmistakably false*" within Therasense's "affirmative egregious misconduct" exception. 649 F.3d at 1292 (emphasis added).

reasonable inference can be drawn that they did not know. And third, underlying Carpenter's argument is its implicit assertion that there actually were invalidating commercial sales to misrepresent, yet I have already found there genuine disputes of material fact regarding that issue. Carpenter Tech. Corp. v. Allegheny Technologies Inc., CIV.A. 08-2907, 2011 WL 4590415, at \*12 (E.D. Pa. Sept. 30, 2011). Thus, that Ms. Bond, Dr. Jackman, and Mr. Viccaro acted with the specific intent to deceive is clearly not "the single most reasonable inference able to be drawn from the evidence." Therasense, 649 F.3d at 1290 (quoting Star Scientific, Inc. v. R.J. Reynolds Tobacco Co., 537 F.3d 1357, 1365 (Fed. Cir. 2008)). Rather, as ATI correctly points out, "the evidence permits a reasonable inference that the inventors and other ATI individuals involved in patent prosecution believed in good faith that no invalidating sales had occurred, and thus that there were no such facts to disclose to the PTO." Defs.' Mot. for Summ. J. at 13-14. Because "there are multiple reasonable inferences that may be drawn, intent to deceive cannot be found." Therasense, 649 F.3d at 1290-91. ATI is entitled to summary judgment on this point as well.

#### **IV. CONCLUSION**

For the foregoing reasons, ATI's motion is granted and judgment is entered in its favor on Counts V and VI of Carpenter's second amended complaint and on Carpenter's sixth additional defense to ATI's counterclaims.

An appropriate order follows.